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REMARKS/ARGUMENTS

Summary of Office Action

In the Office Action mailed July 29, 2005, claims 1-20 remain pending with claims 1-9 and 12-20 rejected under 35 U.S.C. §103(a) as being unpatentable over the Netscreen Security Appliances ("Netscreen") publication when considered with U.S. Patent Application No. 2003/0126256 ("*Cruickshank*"). Claims 10 and 11 were rejected under 35 U.S.C. §103(a) as being unpatentable in light of the Netscreen publication in view of *Cruickshank* and further in view of official notice that it was old and well known in the art to provide notification via telephone or email.

Examiner's Interview

Applicant wishes to thank the Examiner for his time in providing for an interview, in which Applicants were able to identify distinguishing aspects of the invention over the prior art. Applicant is submitting contemporaneously with this response the Applicant's interview summary.

Discussion of *Cruickshank*

The Office Action relies on *Cruickshank* for disclosing a network operations center that maintains information about each terminal adapter's status with respect to a primary communication path. For example, claim 1 recites: "recording a status indication and recording time in a status indication table at the network operations center, wherein the status indication table associates the status indication and recording time with the terminal adapter identification number."

A similar limitation is found in independent claim 12, which recites the network operations center "comprising a processor and memory, the processor determining a time associated with the receipt of the first status indication message in a status table and starting a timer, and the memory storing the status table associated with the terminal identification number."

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Thus, both the method of claim 1 and the system of independent claim 12 reflect the recording of status information for each individual terminal adapter.

However, Applicant submits that *Cruickshank* teaches away from recording each individual terminal adapter's status. These reasons include:

- 1) *Cruickshank* discloses providing *aggregate network* information, not detailed individual terminal information; and
- 2) *Cruickshank* discloses monitoring network *performance* information, not a terminal's status information.

Cruickshank discloses aggregation of network information

While *Cruickshank* does disclose collecting information from individual cable modems, the system is "configured to obtain first metrics of performance of at least a portion of a broadband network" where the results are combined "into a second metric of network performance indicative of a higher-level of network performance than indicated by the first metric." (Abstract).

This is also described in paragraph 67 of *Cruickshank* where metrics collected by several nodes (e.g., cable network headend, see "node" in figure 1) are combined by a controller. "Data are aggregated by the controller 40 from logically lower levels relating to the networks 12, 14, 16, to logically higher levels, leading to the high level categories ... The aggregation by the controller 40 provides the higher level categories..." (Note: Figure 1 in *Cruickshank* failed to label the controller or node with numerals, however, the "nodes" and "controller" are labeled by name.)

Similarly, paragraph 23 in *Cruickshank* states that:

Network performance values may be provided by a user interface such that relative and absolute values of network performance may be quickly discerned for various, selectable, network levels and for selectable network attributes. Network DMH [degraded modem hours] and SDMH [severely degraded modem hours] are provided in summary format for the

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entire network, regardless of size, in a concise format, e.g., a single computer display screen.

The presentation of aggregate, high level network information teaches away from maintaining and presenting detailed, terminal-specific information. *Cruickshank* indicates the metrics would be collected at a lower level, processed and forwarded for further aggregation. This is reflected in paragraph 25 which states:

Data relating to operation of the networks 12, 14, 16 are collected by nodes 34, 36, 38 that can communicate bi-directionally with the networks 12, 14, 16. The nodes 34, 36, 38 collect data regarding the CMTSs 32, and the CPE 29 and manipulate the collected data to determine metrics of network performance. These metrics can be forwarded, with or without being combined in various ways, to a controller 40 within the platform 20.

Note that the node (e.g., cable headend) collects and processes the data to determine the metric. It is the metrics that are forward to the controller, not the individual data collected.

Thus, the operation center collects metrics, which are combined to provide network wide metrics.

Cruickshank discloses monitoring network performance information

Cruickshank disclose monitoring *performance* information, which is not the same as recording status information. Performance information is typically based on multiple metrics, such as a ratio. In *Cruickshank*, these are "degraded modem hours" (DMH) or "severely degraded modem hours" (SDMH). Other metrics include "utilization" (Table 2), error thresholds (paragraph 34), etc.

Status information provides information of the current state of a terminal. Specifically, claim 1 recites the "status update message further including a terminal adapter identification number and a first primary communication path status." Status information provides information

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on a current state of a terminal, which may be used to determine network performance, but by itself is not a network performance metric.

Performance evaluation typically involves processing information to determine the desired and useful network performance metrics. Because network performance is inherently based on the overall network's performance, there is processing involved, typically of a statistical nature. Individual data is typically is not retained after processing to determine the performance metric.

Netscreen Reference

The Office Action notes that the Netscreen reference discloses a secondary dial-backup interface to an Ethernet primary interface. However, there is no disclosure in the Netscreen reference that a status message is generated by the device, let alone indicating the status of the primary communication path. Consequently, the limitation is claim 1 of "receiving a first status update message from the terminal adapter by the network node" is absent from the Netscreen reference.

Summary

Applicant submits the Netscreen reference does not disclose sending status messages that reflect the communication path status of an individual terminal adapter. Further, *Cruickshank* does not disclose maintaining individual terminal status information, but rather determining performance metrics, and further, for a network on an aggregate level – not for individual terminal adapters. Consequently, because both independent claims 1 and 12 recite limitations of recording status information for an individual terminal adapter, the combination of references does not render obvious the limitations in the independent claims. Further, because the dependent claims incorporate the limitations of the independent claims, none of the dependent claims are rendered obvious.

With this response, Applicant submits that the two independent claims herein are patentable over the references identified to date, as are the remaining dependent claims.

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Applicant respectfully requests that all claims in the present application be placed in a condition for allowance.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,



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CERTIFICATION OF FACSIMILE TRANSMISSION

I hereby certify that this paper is being facsimile transmitted to the US Patent and Trademark Office at Fax No. (571) 273-8300 on the date shown below.

 Sept. 1, 2005
Karl Koster Date

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